

Applicant : Cy A. Stein et al.  
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**REMARKS**

Claims 1-10, 22, 24-32 and 34-39 are pending in the subject application with claims 11-21, 23 and 33 withdrawn from consideration. Applicants acknowledge the Examiner's allowance of claims 1-9, 32 and 38. Applicant has hereinabove canceled claims 11-21, 23, 31 and 33 without prejudice or disclaimer to applicants' right to pursue the subject matter of these claims in the future. In addition, applicants have hereinabove amended claims 10, 22, 24, 25, 28, 29, 34 and 38, and have added new claim 40. Applicants maintain that the amendments to the claims and the new claim raise no issue of new matter. Support for the amendments to claim 10 can be found in the specification as originally filed at, *inter alia*, page 5, line 28, to page 6, line 2. Support for the amendments to claim 22 can be found in the specification as originally filed at, *inter alia*, page 13, lines 18-19. Claims 24, 25, 28, and 29 have been amended merely to remove reference to canceled claim 19. Support for the amendments to claim 34 can be found in the specification as originally filed at, *inter alia*, page 14, lines 9-12. Claim 38 has been amended merely to remove reference to canceled claim 13. Support for new claim 40 can be found in the specification as originally filed at, *inter alia*, page 13, lines 13-19; page 11, lines 4-5; page 11 lines 13-15; and page 15, lines 25-29. Accordingly, applicants respectfully request that this Amendment be entered. After entry of this Amendment, claims 1-10, 22, 24-30, 32, and 34-40 will be pending, with claims 1-9, 32 and 38 allowed.

**Claims Rejected Under 35 U.S.C. §112 (Second Paragraph)**

In the April 21, 2004 Office Action, the Examiner stated that

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claim 22 is rejected because the claim depends on "the method of claim 6 or 16", whereas claim 6 is a composition.

In response, applicants have hereinabove amended claim 22 to recite "composition" in place of "method". Accordingly, applicants respectfully request that the Examiner reconsider and withdraw this ground of rejection.

**Claims Rejected Under 35 U.S.C. §112 (Enablement)**

The Examiner stated that claims 10, 24-31, 34-37, and 39 are rejected under 35 U.S.C. §112, first paragraph, because the specification, while being enabling for methods of delivering the oligonucleotide of SEQ ID NO: 5 conjugated to the peptide of SEQ ID NO: 2 *in vitro* and *in vivo*, does not reasonably provide enablement for inhibition of any oligonucleotide conjugated to the peptide of SEQ ID NO: 5 in the *in vivo* whole animal, or for treatment of cancerous cells in the *in vivo* whole animal.

In response, in order to expedite prosecution, but without conceding the correctness of the Examiner's position, applicants have hereinabove amended claims 10 and 34 to recite the term "*in vitro*". In addition, applicants note that working examples of such *in vitro* oligonucleotide delivery and antisense-mediated inhibition of gene expression are provided in the specification (for example, see Figs. 1, 3, and 7-9, and Brief Description of the Figures at pages 8 and 9), and maintain that the claimed subject matter is clearly enabled. Accordingly, applicants respectfully request that the Examiner reconsider and withdraw this ground of rejection.

With regard to claim 39, directed to a method of delivering an

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oligonucleotide into a cell, applicants note that the cited references, although qualified by the Examiner as showing "in-vivo antisense-mediated gene inhibition is not considered predictable", do not refer to the separate issue of predictability of peptide conjugate delivery of oligonucleotides into cells, other than that some peptide conjugate delivery systems have been employed (e.g. see Gewirtz, p3162). In addition, applicants have provided working examples of such peptide conjugate delivery. Moreover, applicants have demonstrated that the claimed peptides can conjugate with different oligonucleotides and deliver them into different cells (for example, see Figs. 1, 3, and 7-9, and Brief Description of the Figures at pages 8 and 9). Accordingly, applicants maintain that the specification clearly enables the method of claim 39, and respectfully request that the Examiner reconsider and withdraw this ground of rejection.

In addition, applicants have added new claim 40 directed to subject matter indicated by the Examiner in the April 21, 2004 Office Action to be enabled, as stated hereinabove.

**Claims Rejected Under 35 U.S.C. §112 (Written Description)**

The Examiner stated that claims 10, 24-31, 34-37, and 39 are rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. The Examiner further stated that applicants claim language is broadly drawn to methods of gene inhibition using any oligonucleotide conjugate in cells encompassing *in vivo* applications, and further to their therapeutic use, particularly in cancer. The Examiner also stated that the genus of conjugates retaining these functions is not immediately envisioned because A) the genus of any antisense/SEQ

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ID NO: 2 conjugate is large, as evidenced by the large number of mRNA transcripts thought to be involved in cancer, and B) the genus is unpredictable, because the use of antisense compounds *in vivo* is not considered to be reliable. The Examiner further stated that the two conjugates exemplified *in vitro* are not considered to provide adequate support for methods of using a genus of any antisense conjugated to SEQ ID NO: 2 for use in *in vivo* methods of inhibition or treatment, because this genus is both large and unpredictable, and thus applicants are not considered to be in possession of the methods as broadly claimed.

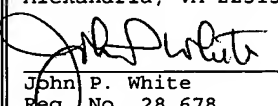
In response, in order to expedite prosecution, but without conceding the correctness of the Examiner's position, applicants have hereinabove amended claims 10 and 34 to recite the term "*in vitro*". In addition, applicants note that the specification provides working examples showing the claimed peptides can conjugate with different oligonucleotides and deliver them into different cells (for example, see Figs. 1, 3, and 7-9, and Brief Description of the Figures at pages 8 and 9). Accordingly, applicants maintain that the specification clearly shows applicants were in possession of the claimed subject matter at the time of filing, and respectfully request that the Examiner reconsider and withdraw this ground of rejection.

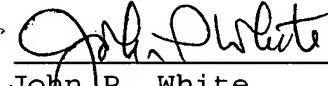
If a telephone interview would be of assistance in advancing prosecution of the subject application, applicants' undersigned attorney invites the Examiner to telephone him at the number provided below.

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No fee is deemed necessary in connection with the filing of this Amendment. If any fee is required, authorization is hereby given to charge the amount of any such fee to Deposit Account No. 03-3125.

Respectfully submitted,

I hereby certify that this correspondence is being deposited this date with the U.S. Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents P.O. BOX 1450 Alexandria, VA 22313-1450	
 John P. White Reg. No. 28,678	7/21/04 Date

  
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